

SEQUENCE LISTING

<110> King, Kendall W
Madura, Rebecca A
Rosey, Everett L

<120> NUCLEIC ACIDS AND PROTEINS OF THE MYCOPLASMA PNEUMONIAE
mhp3 GENE AND USES THEREOF

<130> PC10555

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<150> US 60/156,602

<151> 1999-09-29

<160> 41

<170> PatentIn Ver. 2.1

<210> 1

<211> 1692

<212> DNA

<213> Mycoplasma hyopneumoniae

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<213> Mycoplasma hyopneumoniae

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Ser Thr Leu Leu Ala Val Ala Gly Pro Leu Thr Glu Ile Phe Ser Asp		
290	295	300
Ile Ile Ala Asn Gln Asn Asp Arg Tyr Leu Ile Gly Val Asp Thr Asp		
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Gln Ser Leu Val Tyr Thr Lys Thr Lys Asn Lys Phe Phe Thr Ser Ile		
	325	330
Leu Lys Asn Leu Gly Tyr Ser Val Phe Ser Val Leu Ser Asp Leu Tyr		
	340	345
Thr Lys Lys Ser Asn Ser Arg Asn Leu Ala Gly Phe Glu Phe Gly Lys		
	355	360
Lys Ser Ala Thr Val Tyr Leu Gly Ile Lys Asp Arg Phe Val Asp Ile		
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Ala Asp Thr Ser Leu Glu Gly Asn Asp Lys Lys Leu Ala Thr Glu Ala		
385	390	395
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Ala Glu Glu Val Arg Lys Thr Leu Glu Ile Pro Glu Met Pro Asp Lys		
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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: mhp3
manipulated for in vitro expression

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Arg Lys Ser Glu Ile Met Ala Ala Lys Ala Asp Ala Asn Lys His Phe
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Gly Leu Asn Met Ala Ile Val Thr Ala Gly Gly Thr Val Asn Asp Asn
  50          55          60

Ser Phe Asn Gln Ser Gly Trp Glu Ala Ile Gln Gln Leu Gly Ala Leu
  65          70          75          80

Thr Gly Gly Glu Ile Thr Ser Val Asp Ser Ser Thr Ala Glu Leu Glu
          85          90          95

Gly Lys Tyr Ser Ser Leu Ala Asn Thr Asn Lys Asn Val Trp Val Leu
          100          105          110

Ser Gly Phe Gln His Gly Asp Ala Phe Thr Arg Trp Leu Lys Ile Pro
          115          120          125

Glu Asn Lys Gln Leu Phe Thr Glu Lys Asn Ile Ile Ile Leu Gly Ile
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Asp Trp Thr Asp Thr Glu Asn Val Ile Pro Thr Gly Arg Tyr Ile Asn
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Leu Thr Tyr Lys Thr Glu Glu Ala Gly Trp Leu Ala Gly Tyr Ala Asn

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Ala	Ile	Val	Ile	Gly	Gly	Gly	Ile	Ser	Pro	Ala	Val	Thr	Asp	Phe	Ile
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Ala	Gly	Tyr	Leu	Ala	Gly	Ile	Lys	Ala	Trp	Asn	Leu	Lys	Asn	Ser	Asp
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Asp	Val	Gln	Asp	Thr	Ser	Thr	Lys	Glu	Arg	Leu	Glu	Gln	Ile	Ala	Ser
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Lys	Asp	Lys	Pro	Ser	Thr	Leu	Leu	Ala	Val	Ala	Gly	Pro	Leu	Thr	Glu
			260				265							270	
Ile	Phe	Ser	Asp	Ile	Ile	Ala	Asn	Gln	Asn	Asp	Arg	Tyr	Leu	Ile	Gly
			275				280							285	
Val	Asp	Thr	Asp	Gln	Ser	Leu	Val	Tyr	Thr	Lys	Thr	Lys	Asn	Lys	Phe
		290				295						300			
Phe	Thr	Ser	Ile	Leu	Lys	Asn	Leu	Gly	Tyr	Ser	Val	Phe	Ser	Val	Leu
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Ser	Asp	Leu	Tyr	Thr	Lys	Lys	Ser	Asn	Ser	Arg	Asn	Leu	Ala	Gly	Phe
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Glu	Phe	Gly	Lys	Lys	Ser	Ala	Thr	Val	Tyr	Leu	Gly	Ile	Lys	Asp	Arg
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Phe	Val	Asp	Ile	Ala	Asp	Thr	Ser	Leu	Glu	Gly	Asn	Asp	Lys	Lys	Leu
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Ala	Thr	Glu	Ala	Ile	Ser	Glu	Ala	Lys	Lys	Glu	Phe	Glu	Glu	Lys	Thr
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Lys	Thr	Ile	Pro	Ala	Glu	Glu	Val	Arg	Lys	Thr	Leu	Glu	Ile	Pro	Glu
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Met	Pro	Asp	Lys	Gln	Pro	Asp	Lys	Gln	Gln	Glu	Ser	Leu	Asp	Lys	Leu
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<223> Description of Artificial Sequence:
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<223> Description of Artificial Sequence:
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<400> 27

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<212> DNA

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Glu	Ala	Val	Leu	Glu	His	Tyr	Asp	Gln	Ile	Glu	Lys	Thr	Thr	Asn	Leu
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Asp	Arg	Val	Ser	Gln	Glu	Thr	Asn	Asn	Gln	Ser	Glu	Leu	Ile	Gly	Lys
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Tyr	Lys	Asn	Phe	Leu	Asn	Gly	Asn	Lys	Asn	Val	Trp	Ile	Leu	Thr	Gly
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145					150					155					160
Val	Ala	Val	Asp	Trp	Asp	Leu	Ser	Lys	Glu	Asp	Lys	Asp	Leu	Ile	Lys
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Ala	Gly	His	Phe	Ile	Ser	Leu	Leu	Tyr	Lys	Thr	Glu	Glu	Ala	Gly	Phe
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225					230					235					240
Asn	Asn	Asp	Asn	Pro	Thr	Ala	Lys	Val	Thr	Ile	Ser	Asp	Asn	Asn	Ile
				245					250					255	
Asn	Ile	Asp	Thr	Gly	Phe	Ile	Ser	Asn	Asp	Lys	Thr	Ala	Thr	Phe	Ile
			260					265					270		
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Trp	Ala	Phe	His	Ser	Arg	Phe	Ile	Asn								
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